

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER 645-178
INTERNATIONAL APPLICATION NO. PCT/JP2003/011799		INTERNATIONAL FILING DATE 17 September 2003
TITLE OF INVENTION REACTOR WITH PACKING MEAN		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 107972186
APPLICANT(S) FOR DO/EO/US Tadayoshi Nagaoka		PRIORITY DATE CLAIMED 17 September 2003

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98. WITH CITED REFERENCES
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).

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U.S. APPLICATION NO. (if known; see 37 CFR 1.5) 817072386	INTERNATIONAL APPLICATION NO. PCT/JP2003/011799	ATTORNEY'S DOCKET NUMBER 645-178																
20. Other items or information: Request for PCT Application, International Search Report, First page of International Publication WO2005/028099																		
The following fees have been submitted		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:60%;">CALCULATIONS</th> <th style="width:40%;">PTO USE ONLY</th> </tr> </table>	CALCULATIONS	PTO USE ONLY														
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21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... \$300		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$ 300.00</td> <td style="width:40%;"></td> </tr> </table>	\$ 300.00															
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22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0 All other situations.....\$200		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$ 200.00</td> <td style="width:40%;"></td> </tr> </table>	\$ 200.00															
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23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority.....\$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400 All other situations.....\$500		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$ 400.00</td> <td style="width:40%;"></td> </tr> </table>	\$ 400.00															
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TOTAL OF 21, 22 and 23 =		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">900.00</td> <td style="width:40%;"></td> </tr> </table>	900.00															
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<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;"></td> <td style="width:40%;"></td> </tr> </table>																
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:20%;">Total Sheets</th> <th style="width:20%;">Extra Sheets</th> <th style="width:30%;">Number of each additional 50 or fraction thereof (round up to a whole number)</th> <th style="width:30%;">RATE</th> </tr> <tr> <td>- 100 =</td> <td>/50 =</td> <td></td> <td>x \$250</td> </tr> </table>	Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE	- 100 =	/50 =		x \$250	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$</td> <td style="width:40%;"></td> </tr> </table>		\$							
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Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$ 130.00</td> <td style="width:40%;"></td> </tr> </table>	\$ 130.00															
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TOTAL OF ABOVE CALCULATIONS =		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$ 1,130.00</td> <td style="width:40%;"></td> </tr> </table>	\$ 1,130.00															
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<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$ 565.00</td> <td style="width:40%;"></td> </tr> </table>	\$ 565.00															
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Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$</td> <td style="width:40%;"></td> </tr> </table>	\$															
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Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">\$</td> <td style="width:40%;"></td> </tr> </table>	\$															
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08/07/2186

AP20080107PTO 15 MAR 2006

- a. ☒ A check in the amount of \$ 565.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
 A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 08-1540. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

James V. Costigan
 Hedman & Costigan
 1185 Avenue of the Americas
 New York, NY 10036-2646
 (212) 302-8989



SIGNATURE

James V. Costigan

NAME

25,669

REGISTRATION NUMBER

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

"Express Mail" Mailing Label EV641373860 US

Date of Deposit: March 15, 2006

I hereby certify that this paper or fee is being deposited with the United States Postal Service by "Express Mail Post Office To Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to:

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450


 James V. Costigan, Reg. No. 25,669